

## EDUCATIONAL BACKGROUND

Imperial College, University of London, U.K., PhD in Physics, 1999-2002.

Thesis title: “*Cosmological scalar field theories and their observational implications*”.

Imperial College, University of London, U.K., MSc in Quantum Fields & Fundamental Forces, 1998-1999. Dissertation: “*Departures from CMB Gaussianity using inflationary models*”.

Christ’s College, Cambridge University, U.K., BA Hons. in Natural Sciences, 1992-1995.

## PROFESSIONAL EXPERIENCE

Cornell University, Department of Astronomy, Associate Professor, Jan 2011 - present.

Cornell University, Department of Astronomy, Assistant Professor, Aug 2005 - Jan 2011.

Princeton University, Dept. of Astrophysical Sciences, Postdoctoral Fellow, Sep 2002- Aug 2005.

Bridgewater Consulting, London, Associate Consultant, 1997-1998.

Accenture, Strategy Division, London, Senior Analyst, 1995-1997.

## HONORS AND AWARDS

Merle Kingsley Distinguished Visitor, Caltech, 2013.

Gruber Prize in Cosmology (as a member of the NASA WMAP satellite science team), Gruber Foundation, 2012.

Presidential Early Career Award in Science and Engineering (PECASE), White House Office of Science and Technology Policy, 2010.

Early Career Development (CAREER) Award, National Science Foundation, 2009-2014.

Cottrell Scholar Award, Research Corporation, 2008-2011.

Kavli Frontiers Fellow, National Academy of Sciences, December 2006 & November 2007.

NASA Group Achievement Award (as a member of the NASA WMAP satellite science team), 2007.

## SELECTED OTHER PROFESSIONAL ACTIVITIES

NASA WFIRST High Latitude Survey Science Investigation Team member, 2016-present.

Tri-Agency (DOE, NASA, NSF) coordination group for the LSST, Euclid & WFIRST, 2015-present.

Large Synoptic Survey Telescope Dark Energy Science Collaboration (LSST DESC), Spokesperson (Collaboration Lead), July 2015-present.

UC Santa Barbara Kavli Institute of Theoretical Physics (KITP) Advisory Board member, 2014-present.

NASA Physics of the Cosmos Program Analysis Group advisory committee member, 2014-present

DESI (Dark Energy Spectroscopic Instrument) Collaboration member and “Small Scale Clustering, Clusters and Cross-Correlations” working group co-lead, 2014-present.

## SELECTED OTHER PROFESSIONAL ACTIVITIES continued

NASA Euclid Science Team member 2013-present.

American Physical Society, Division of Astrophysics Executive Committee, 2011-2013.

DOE Laboratory Review Committee for their Cosmic Frontiers Program October 2013.

## SELECTED MISSION AND SURVEY PLANNING REPORTS

LSS Dark Energy Science Collaboration (DESC), “*Science Roadmap*”. Collaboration-wide planning document detailing the critical activities to be ready for first light analysis of LSST data, [http://lsst-desc.org/sites/default/files/DESC\\_SRM\\_V1.pdf](http://lsst-desc.org/sites/default/files/DESC_SRM_V1.pdf), November 2015.

B. Jain et al, “*The Whole is Greater than the Sum of the Parts: Optimizing the Joint Science Return from LSST, Euclid and WFIRST*”, White Paper, arXiv:1501.07897.

LSST Dark Energy Science Collaboration, “*Large Synoptic Survey Telescope: Dark Energy Science Collaboration*”, arXiv:1211.0310 (astro-ph).

NASA WFIRST Science Definition Team, “*Wide-Field InfraRed Survey Telescope (WFIRST) Final Report*”, August 2012, arxiv:1208.4012 (astro-ph).

## SELECTED PEER REVIEWED PUBLICATIONS

J. Byun, N. Agarwal, R. Bean, R. Holman, “*Looking for non-Gaussianity in all the right places: A new basis for non-separable bispectra*”, Phys. Rev. D 91, 123518 (2015), arXiv:1504.01394.

E. Mueller, F. De Bernardis, R. Bean and M. Niemack, “*Constraints on massive neutrinos from the pairwise kinematic Sunyaev-Zel’dovich effect*”, Phys. Rev. D 92, 063501 (2015), arXiv:1412.0592.

J. Byun and R. Bean, “*Non-Gaussian Shape Discrimination with Spectroscopic Galaxy Surveys*”, JCAP, 03 (2015), DOI:10.1088/1475-7516/2015/03/019, arXiv:1409.5440

E. Mueller, F. De Bernardis, R. Bean and M. Niemack, “*Constraints on gravity and dark energy from the pairwise kinematic Sunyaev-Zeldovich effect*”, ApJ, Volume 808, Number 1, arXiv:1408.6248.

J. Byun and R. Bean, “*Non-Gaussian Shape Recognition*”, Journal of Cosmology and Astrophysics (JCAP) 1309 (2013) 026 DOI: 10.1088/1475-7516/2013/09/026, arxiv:1303.3050 (astro-ph).

E. Mueller, R. Bean, S. Watson, “*Cosmological Implications of the Effective Field Theory of Cosmic Acceleration*”, arxiv:1209.2706 (astro-ph), Phys. Rev. D. 87 083504.

I. Laszlo, R. Bean, D. Kirk, S. Bridle “*Disentangling dark energy and cosmic tests of gravity from weak lensing systematics*”, arXiv:1109.4535 (astro-ph), MNRAS, vol 423, 2, (2012).

N. Agarwal, R. Bean, L. McAllister, G. Xu, “*Universality in D-brane Inflation*”, arXiv: 1103.2775 (astro-ph), JCAP 1109, 002 (2011).

D. N. Spergel, R. Bean, O. Doré, M. R.olta, et. al. “*Wilkinson Microwave Anisotropy Probe (WMAP) Three Year Results: Implications for Cosmology*”, Astrophys.J.Suppl.170:377, 2007, arxiv:astro-ph/0603449.